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Support Grows for Bigger Military Space Role

Signs are increasing that the new Administration plans to press the development of a wide array of military space systems.

Prior to Inauguration Day, members of the Defense Department transition team were passing the word that the Reagan Administration would not be timid about space-based laser weapons. And some reports suggested that the coming space agenda would even extend to the development of *Star Wars*-style space behemoths, orbiting battleships capable of detecting, tracking, and destroying hostile spacecraft and incoming ballistic missiles.

Even with the vast costs that would be involved, there is not likely to be much dissent from Congress,

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which, in harmony with the hard-lobbying aerospace industry and the Air Force, is a principal source of support for expanding the military role in space. The general impression is that supporters of a crash program are growing, and that their hand has been strengthened by a report from the Science, Technology and Space Subcommittee of the Senate Commerce Committee. Issued shortly before Christmas the report criticized the Carter Administration's lack of enthusiasm for a major laser-weapons development program, and suggested that such a system should become the focus for completion "at the earliest practicable date."

Outside the defense community (and to some extent inside it, as well) there is less enthusiasm. Many scientists have pointed out that there is a mass of technical questions to be resolved before small-scale demonstrations of the laser's ability to destroy slow-moving, relatively close targets can be developed into high-powered, operational devices. Of vital importance is the ability to distinguish between real and decoy targets, to keep the laser beam focused on a missile long enough to burn a hole in the hull, and to determine how much damage has been done so that it can fire again if necessary—all highly uncertain at present.

Listing these and other objections, a report published recently by Kosta Tsipis and M. Callahan of MIT's Program in Science and Technology in International Security reached the conclusion that laser weapons systems were likely to be too expensive, too unpredictable, and too vulnerable to attack to make them a realistic proposition for meeting US military needs.

Though many who have read the MIT report feel that its technological prognosis tends to be overpessimistic, they also feel it provides a useful damper to some of the more extravagant claims that have been appearing in the press in the past few years. In one newspaper report, for example, a Senate aide suggested that a full-scale laser weapons system could be deployed within three years—given, of course, an adequate infusion of funding.

But political realities being what they are, words of caution—even from MIT—are not likely to stand in the way of the support that is now gathering momentum for precisely the type of project that the authors criticize. The Senate report, for example, admits that the Science and Technology Subcommittee finds the diversity and intensity of opinion among scientists

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In Brief

As a research spender on campus, the Defense Department is climbing back to the prominent position it occupied before the Vietnam War resentments and the Mansfield Amendment frayed its academic ties. The final Carter budget calls for boosting Defense R&D funds for academe by 21 per cent, to a total of $608 million, not far below NSF's $807 million for academic science.

Big Bust at the Academy: As is the tradition for past chiefs of the National Academy of Sciences, retiring President Philip Handler will be artfully memorialized. The standard choice of oil or bust has been resolved with his choice of the latter, the specific piece being a likeness of Handler sculpted by Robert Berks, creator of the deficit-ridden Einstein deformity on the Academy grounds. Expecting corporate gifts that never came, the Academy paid over $1 million for its Einstein. The Handler bust, on display in the Academy reading room, comes free of charge.

Arthur Bueche, the GE executive who advised the Reagan transition on research-related matters, emphatically told his R&D Task Force colleagues to count him out as a prospect for presidential science adviser, and went back to corporate headquarters in Connecticut.

. . .Senate Came Close to Voting $10 Billion

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about the technical and economic viability of high energy lasers to be "unsettling."

But it presents the admitted technical difficulties as a challenge rather as an obstacle. "According to the testimony, progress to date has been 'convincing' and no insurmountable physical principles have been identified which preclude future developments. Another decade or more of intensive research may be required to establish the technical feasability of achieving the most difficult applications," it says, adding inevitably that "to accomplish this increased Federal funding is unequivocal."

Pressure on the top military brass of the Carter Administration to pursue a more aggressive research program into high-energy lasers for use in space had been growing steadily for the past few years in the light of intelligence reports that the Soviet Union already appears to have a major research effort in the field.

Two and a half years ago, Senate members were being briefed by a top-level team from the aerospace industry—Maxwell W. Hunter of Lockheed, Joseph Miller of TRW, Norbert Schnog from Perkin-Elmer, and Gerald A. Ouellette from the Charles Stark Draper Laboratory, Inc.—about responding to the perceived Soviet threat. Each of these companies has a major interest in at least one aspect of the construction of space-based laser stations: Perkin-Elmer, for example, would be one of the main contenders to construct the mirrors needed to direct the laser beam on to its target; and TRW (one of whose founders, Simon Ramo, co-chaired Mr. Reagan's pre-inaugural Science and Technology Task Force) has developed a chemically powered laser which creates its light by burning hydrogen and fluoride gas and is considered by many experts to be the most likely candidate for use in space.

The lobbying effort seems to be paying off. When the Senate voted on the 1981 defense procurement authorization bill last summer, a substantial number of Senators unsuccessfully supported a major national program to develop and deploy in three to five years, at a cost of about $10 billion, a space-based high-energy-laser antiballistic missile system. This was precisely the scheme whose feasability, using up to 20 orbiting space stations, had been described by the aerospace companies. The amendment lost by 39 votes to 50; in the new political climate, the amendment would probably pass.

In the Department of Defense reaction has been mixed. The Defense Science Board set up a panel, chaired by John Foster of TRW, a former Pentagon research chief, to evaluate the effectiveness of its laser research. And this panel came up with a report last spring which concluded that, given the many unresolved technical difficulties, the main emphasis should continue to be placed on the near-term application of laser weapons for missions such as shipboard air defense, where they can be used for blinding or destroying incoming missiles. The Carter Administration's Under-Secretary for Defense R&D, William Perry, has made little secret of his belief that, even if lasers can be developed into a major space-based weapons system, this is unlikely to be achieved until late in the 1990s—a belief said to be shared by British military scientists and engineers collaborating with Pentagon studies of laser weaponry.

Defense Secretary Harold Brown did not take his Science Board's advice. Accepting the need for a scaled-up research effort into the technology required for the effective use of lasers in space—where they are able to operate without the many disadvantages, such as susceptibility to clouds, fog and other weather conditions, which impede lasers operating within the atmosphere—he agreed to cut back on funds that had been allocated for early demonstrations of ground-based lasers, and told the three services that research was to concentrate on demonstrating the feasibility of space lasers.

The Senate committee report—which staff members agree is generally compatible with the declared wishes of the Reagan transition team—contemplates moving further and faster in the same direction. It points out that, at present, research into high-energy lasers is divided between the three services—each of which has different goals in mind—as well as the Defense Ad-

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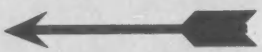

. . .Major Effect Seen on Arms Control Efforts

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vanced Research Projects Agency (DARPA), where some of the most committeed proponents of laser warfare are to be found.

Under Carter lack of a clear, centrally coordinated research strategy limited the Defense Department's ability aggressively to pursue a path which would result in the earliest possible deployment of laser weaponry. Consequently the Subcommittee recommended that a single organization, reporting directly to the Deputy Under Secretary for Research and Engineering, should have the responsibility (and budget control) for the entire DoD high-energy laser program. "DARPA and one or more of the military services could be assigned responsibility to execute clearly defined portions of the integrated DoD programs," the subcommittee said. It added that the whole research program should be provided with a "fenced" budget within the Pentagon's research funding, arguing that "fencing," which would be sanctioned by the Secretary of Defense, is necessary "to achieve program integration, balance and continuity."

As far as budgetary support is concerned, the Subcommittee recommended substantial increases over the levels proposed by the Carter Administration. Currently the Department of Defense is spending about $200 million a year across the three services and ARPA for high-energy laser research, over half of which is allocated to the Air Force. The subcommittee recommended an increase of almost 40 per cent, to $276 million for the fiscal year 1982, with a large portion of additional funding going to DARPA, and a further 20 per cent increase in 1983.

Mr. Reagan's proposals may even exceed these figures, with expenditures in the region of $500 million being discussed in some quarters. Given this level of funding, it is argued, research could be accelerated which would find ways around many of the technical objections being raised by critics such as Tsipis and Callahan. Some even feel that the weight of laser-producing satellites could be reduced as low as 40,000 to 50,000 pounds; the current load necessary to produce the energies to power the laser beam is often quoted as a major limiting factor.

Yet both proponents and critics of space-based lasers accept that even an accelerated research program is likely to add new tensions to international strategic arms negotiations, since it would necessarily involve rethinking several aspects of both offensive and defensive strategy. As the Senate report puts it, "Decisions by the government on the development of high-energy laser technology and weapons systems will make a dramatic difference in the emerging tactical and strategic balance."

Arms control considerations are likely to play a less important role in determining the attitude of the Reagan Administration to laser weapons than under President Carter, whose cautious approach to full-scale weapons development seems to have been as much a product of strategic as of technical considerations. But they cannot be ignored, since the US has been among the leading promoters of a UN treaty banning the use of weapons in space, and it can even be argued that anti-missile lasers might be covered by the terms of the ABM treaty of 1972.

Certainly the arms-control community now faces an uphill task of trying to ensure that, if laser weapons are developed as Mr. Reagan seems to be promising, then discussions of their international control should progress along parallel tracks. It is not likely to find much support for restraint in either a Republican-dominated Senate, or a House of Representatives fully prepared to finance significant increases in the defense budget. Roll on, military-industrial complex.—David Dickson

(The author is Washington correspondent of the British journal *Nature*.)

Press, Ebert Elected to Top Posts at Science Academy

Frank Press, the MIT geophysicist who served as Jimmy Carter's Science Adviser, has been elected 19th President of the National Academy of Sciences (NAS), which was expected, since the NAS mail-ballot allows for only one candidate.

In the vice presidential election, where competition is permitted, James D. Ebert, President of the Carnegie Institution of Washington, beat Jacob Bigeleisen, Vice President for Research at the Stony Brook campus of the State University of New York. The NAS would not reveal the vote, or even how many members voted. The vice presidency is somewhat important because it currently goes with the task of serving as chairman of the Academy's Report Review Committee, which is supposed to check that NAS reports released to the public are not too abysmal in quality. But that linkup is a presidential prerogative, and it's not known whether Press will keep it when he takes office, next July.

Elected as members of the NAS Council, also in competitive votes, were: Robert McC. Adams and Elwood Jensen, both of the University of Chicago; Elizabeth Miller, University of Wisconsin, and I.M. Singer, UC Berkeley.

Rep. Brown Drops House Science Chairmanship

Fresh from a narrowly won re-election bid, Rep. George E. Brown Jr. (D-Calif.) is giving up the chairmanship of the House Subcommittee on Science, Research, and Technology to take an Agriculture subcommittee chairmanship that he figures will boost his standing at the polls.

Brown, who was stern but supportive toward the major organization in his old subcommittee jurisdiction, the National Science Foundation, feels that he received no political benefits from his role as the principal science legislator in the House. An aide, noting that Brown won re-election with a 52-per-cent majority—the lowest in his nine Congressional races—said, "Brown got nothing from the scientists. They didn't help him in the campaign. They didn't make any statements of praise that he could use."

Situated in a district about 60 miles east of Los Angeles, Brown's constituency is more agricultural than scientific, which also figures in his decision to take the chairmanship of the Agriculture Subcommittee on Department Operations, Research, and Foreign Agriculture. He'll succeed Rep. E de la Garza (D-Texas), who's moving up to the full Agriculture chairmanship. Brown will remain on the Science and Technology Committee, parent of the science subcommittee, which he chaired for two years. Prior to that, he chaired the Subcommittee on Environment and the Atmosphere.

The science subcommittee, with a jurisdiction that also includes the White House science office and the National Bureau of Standards, is the focal point for science-policy deliberations in the House. Brown brought a good deal of vigor to the chairmanship, and, in particular, rode NSF hard on its widely recognized failure to put adequate resources and attention into applied research. The NSF brass, with their traditional distaste for what they see as lay meddling in the internal affairs of science, gave Brown the standard treatment, which consists of assurances that Foundation policies and practices are a distillation of purified wisdom.

Brown then wrote in a statutory requirement for the Foundation to spend $5 million on "targeted" research—a move that infuriated the mandarins., What's ironic, though, is that when the Carter Administration directed NSF to pay more attention to applied research and engineering, the Foundation responded with a reorganization that apparently embodies what Brown had in mind.

Brown also antagonized the sci-tech establishment by demanding that the White House Office of Science and Technology Policy (OSTP) perform its statutory duty of preparing long-range assessments of needs and opportunities in science and technology, the Five Year Outlook report. The response, again, was a barrage of assurances that all is well, the offered evidence being that OSTP had handed the task to the National Science Foundation, which then contracted major chunks of it to the National Academy of Sciences. When it was protested that this handoff process was not what Congress intended when it sought to pin down the White House on longrange science policy, the response, in effect, was, well, that's just too bad.

Brown's successor as chairman of the science subcommittee has not yet been determined.

Carter Berates Congress For Seeking Detailed R&D Role

The contempt that the Carter White House displayed toward Rep. George E. Brown Jr. and other legislators responsible for science-policy affairs is evident in an extraordinary statement that Carter issued December 12 when he signed the annual authorization bill for the National Science Foundation.

Stating that he signed with reservations, Carter complained that the bill "contains an unprecedented level of detailed funding specifications and administrative direction," and added, "The level of detailed political direction in this legislation represents a trend in the wrong direction." For the Foundation to do its work properly, Carter went on, it "must continue to be led and directed by scientists."

Then he turned to the House and Senate committee reports that accompanied the bill and attacked them for giving NSF specific directions, such as one for providing "continued strong support for scientific instrumentation and equpment."

And Carter concluded, "I am. . .reminding the Director of the National Science Foundation that committee reports are not law and should not be treated as though they were."

A better example of how not to get along with Congress would be difficult to find. What obviously should have been dealt with in private, informal conversation was instead elevated into an absurd legislative-executive confrontation.

The Budget He Left Behind Boosts R&D for '82

FEDERAL R&D OBLIGATIONS BY AGENCY: FY 1980-82

(MILLIONS OF DOLLARS)

AGENCY	FY 1980	FY 1981 est.	FY 1982 est.	PERCENT CHANGE 1981-82
TOTAL	31,682	35,226	41,734	+ 18.5
DOD-MILITARY	13,943	16,226	20,033	+ 23.5
NASA	5,084	5,422	6,589	+ 21.5
DOE	4,737	5,167	5,642	+ 9.2
HHS	3,790	3,964	4,285	+ 8.1
NSF	888	1,015	1,157	+ 14.1
USDA	687	775	871	+ 12.3
INTERIOR	438	465	496	+ 6.7
DOT	374	413	474	+ 14.6
COMMERCE	341	365	411	+ 12.8
EPA	348	364	345	− 5.2
LABOR	215	153	330	+116.0
ALL OTHERS	839	897	1,102	+ 22.8

SOURCE: OFFICE OF MANAGEMENT AND BUDGET

There's not much to be said about the lame-duck budget that Mr. Carter left Mr. Reagan for the fiscal year that begins next October 1, except that it's so generous for research that it could be that the outgoing President was rubbing his successor's nose in Reagan's campaign pledges of affection for science.

With the Reaganites roaring that they're going to undo the total Carter budget with unprecedented thoroughness, the 14.4 per-cent increase that's stated for basic research in Fiscal Year 1982 is likely to draw the budget cutters' attention, especially since it's one of the biggest growths in the vast budget document. And it is not likely to go unnoticed that the National Science Foundation is budgeted for a 14.1 per-cent increase, a boost that is virtually without counterpart in any federal agency. The National Institutes of Health is held down to about an 8-per-cent growth, but, as Science Adviser Frank Press explained at a goodbye news briefing, Congress can be counted on

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FEDERAL R&D OUTLAYS TO UNIVERSITIES AND COLLEGES BY AGENCY: FY 1980-82

(MILLIONS OF DOLLARS)

AGENCY	FY 1980	FY 1981 est.	FY 1982 est.	PERCENT CHANGE 1981-82
TOTAL	3,915	4,219	4,747	+ 12.5
HHS	1,961	2,007	2,213	+ 10.2
NIH	(1,779)	(1,857)	(2,042)	(+10.0)
NSF	620	708	807	+ 14.1
DOD-MILITARY	430	503	608	+ 20.9
DOE	291	310	352	+ 13.5
USDA	206	238	272	+ 14.3
NASA	147	169	184	+ 8.9
ALL OTHERS	262	285	311	+ 9.4

SOURCE: OFFICE OF MANAGEMENT AND BUDGET

NSF Balking at Women in Science Programs

The National Science Foundation has been having considerable difficulty drafting guidelines for its new women in science programs, which were scheduled to begin operating this month. While there are technical problems with the legislation that established the new programs, many NSF officials admit they simply are not keen on the idea of using the Foundation to overcome the effects of discrimination against women.

The legislation, first introduced three years ago by Sen. Edward M. Kennedy (D-Mass.), was designed to support special education programs for young female students who might not otherwise have considered careers in science and engineering. It also was to provide grants for women who have been trained as scientists but who have either dropped out of the labor force or have never received support to conduct their own research.

The official reason for the delay, enunciated at last month's National Science Board meeting, is that Congress was far too specific in writing the legislation, thus making it difficult for NSF to fit the new programs into its other research policies. Though NSF Board members can cite a litany of specific ways in which their hands have been tied by the new legislation, the fact is they have never liked to be told how to run their programs by lawmakers. This dispute is no different. What is different is the degree to which officials and Board members have been willing to state publicly their "philosophical" objections to the program.

Under the legislation, part of the $30 million that is to be spent on women and minority groups is to be used for Research Opportunity Grants, a new program designed to provide research support for women who might not otherwise quality for NSF grants. Another part of the funds is to be used for NSF Visiting Professorships for Women in Science and Engineering, which will provide grants for "established women researchers" who want to work part-time or full-time for up to 24 months as visiting professors at colleges and universities.

Although some Board members fear that the professorship program will turn into a game of "musical chairs" with the best universities stealing the best women scientists, most are satisfied that it is a reasonable way to introduce a larger number of female students to the limited pool of established female researchers.

What troubles the Board and many officials at the Foundation is the grant program. As one official put it, it could easily become a "ghetto program" which will provide women with the money but not the prestige they need to start a successful research career.

"In effect," asked one Board member, "isn't this program setting up a special category of funds that are going to people who can't compete successfully for regular research support?"

Other Board members argue that the grant program would do little more than redistribute funds that already go to women scientists.

"I think this is going to be a very messy and expensive way to replace the same dollars with the same dollars to the same people," warned Lewis M. Branscomb, Chairman of the Board and Vice President and Chief Scientist of IBM.

Late last month, officials were trying to draft guidelines for the grant program that would get around the Board's objections without completely undermining the intent of Congress. If they are successful, presumably more women researchers would be given more money without anyone knowing who is getting special treatment.

While such disguises may be necessary, the Board and the Foundation seem to be overlooking that wo-

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BUDGET *(Continued from page 5)*

to enlarge whatever increase the Administration recommends for biomedical research.

Overall, Press said, it's "the best budget of the past four years for research and development"—which it is. Press noted that under Carter, support for basic research increased from $3.7 billion to $5.9 billion, a 58-per-cent rise that translates to a "real" increase of 10.8 per cent. For this Press deserves a good deal of credit, for he obviously was quite successful in persuading his parsimonious chief to exempt science from budget holddowns that were applied to most other areas of government spending. Congress helped, too, by voting net increases in research agency budgets.

In any case, the budgetary uncertainties that normally prevail at transition time are greater than usual this year. Many signs point to Reagan following Carter in generosity to research, among them his choice of campaign and transition science advisers who link R&D to industrial vigor. On the other hand, his choice for Director of the Office of Management and Budget, David Stockman, has been proclaiming that nothing is sacred and that everything outside the sacrosanct defense budget is considered fair game.

In this setting, Washington nervously awaits the revised budget that Reagan says will be along in a few weeks. In the scholarly realm, few are as nervous as the social scientists, who, even in the friendliest of times, routinely lament that they lack enough friends in high places. What they realize now is that in this Administration, they don't have any at all.

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. . .Even Footdragging on Gathering Data

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men do need to be treated differently if they are to make inroads into the scientific establishment. No amount of window dressing can disguise that.

As Senator Kennedy said when Congress was considering the bill late last year, "Women, by acts of omission or commission, have not experienced equal opportunity in science and technology. I have noted on many occasions that while it is in the national interest to insure the full development and use of the talents of men and women with scientific and technical skills, half of the Nation's population has been overlooked."

Figures compiled by the National Academy of Sciences and analyzed by the Scientific Manpower Commission confirm that few women have even considered careers in science. In chemistry, for example, women make up only 11 per cent of the profession. In physics, they are only about 4 per cent, and in engineering the figure is closer to 3 per cent. Those who do decide to become researchers find that they are paid smaller salaries, promoted less frequently, and receive fewer government grants than their male colleagues. And in many areas, the problems are getting worse, not better, the studies show.

One serious drawback in the new grant program, as NSF officials have pointed out, is that the law requires that all women who apply possess doctoral degrees. At last month's Board meeting, Branscomb noted that many women have "everything but that piece of paper," yet because they do not have their doctorates they are precluded from being named principal investigators on any project.

Another serious drawback of the legislation is that it focuses too much attention on women who are trying to re-enter the job market while paying too little attention to the majority of women scientists who never leave the workforce but who are underpaid and underemployed.

What is worrisome about the Foundation's reaction to the new legislation is not that it has spotted difficulties that the drafters and supporters of the bill either ignored or failed to see; rather, it's that many NSF officials seem opposed to the basic idea of giving special assistance to women. Although many Board members at the Foundation deny outright opposition, they continue to object at every turn to any special proposal for assisting women into the profession.

One of the requirements of the law, for example, is that the Foundation collect statistics about women's participation in science. The idea is to determine, with more precision than has been available in the past, where the problems of discrimination actually occur.

Many NSF officials have objected to the requirement, arguing that the statistics would be costly and of uncertain value. But until it is clear who and what are to blame for keeping women out of the scientific job market, it will be very easy for institutions to coast with the status quo.—AR

Carter, Science Aide Exchange Cordial Letters

President Jimmy Carter and Science Adviser Frank Press parted company with a cordial exchange of letters that Press's office released on the eve of Inauguration Day.

Press, writing December 16 to announce that he'd be leaving December 31 to return to MIT, praised Carter for boosting financial support for research during difficult economic times; also for regarding "industrial innovation and productivity as national problems worthy of presidential attention . . ."

Carter, replying in a letter dated January 15, praised Press's performance, and noted that "I am particularly proud of how we have made scientific and technological cooperation an important element of our relations with developing countries."

In Print

The House Subcommittee on Science, Research, and Technology announces the publication of the following reports, all resulting from hearings or studies conducted by the Subcommittee:

Genetic Engineering, Human Genetics, and Cell Biology— Evolution of Technological Issues—Biotechnology (Serial DDD, August 1980), fourth in a series of subcommittee reports on genetic engineering, notes the swing of scientific opinion toward conclusion that hazards are lower than originally feared. The Subcommittee says pre-announcement requests from Congressional offices have exhausted its own supply of copies, but additional copies will be available from the US Government Printing Office.

Still available from the Subcommittee, without charge, are: *The Food and Drug Administration's Process for Approving New Drugs* (Serial HHH, November 1980), which examines the so-called drug lag, and *Technology and the Cost of Health Care* (Serial FFF, November 1980), which concludes that high-tech is only a minor factor in the cost of health care.

To order, send a self-addressed label to: Publications, Committee on Science and Technology, 2321 Rayburn House Office Building, Washington, D.C. 20515; or telephone (202) 225-5629.

'The Carterite Exodus: R&D Aides Move On

Following last issue's report on post-election plans of some of the Carter Administration's high-level sci-tech appointees, herewith some additional items:

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Gerald P. Dinneen, number two in Defense research and engineering since 1977, is joining Honeywell as Corporate Vice President of Science and Technology. Prior to joining Defense, Dinneen was Director of the Lincoln Laboratory.

Meanwhile, his boss at Defense, Under Secretary William J. Perry, agreed to stay on a bit beyond Inauguration Day, while the new Administration seeks a successor. That's proving to be difficult, given the salary differential between government and the high-paying contractor firms where the Reaganites want to do their defense R&D recruiting. Perry, who has not announced his plans, was said to be eager to move out.

Assistant Secretary for Health Julius B. Richmond has resigned that job, but stays on until the end of June in the companion post of Surgeon General.

Jere Goyan stepped down January 20 as Commissioner of the Food and Drug Administration, but said in a letter to then-Secretary Patricia Harris of the Department of Health and Human Services that he'll stay on "until the end of February to help with the transition." Then he'll return to the University of California at San Francisco, where he's a Professor of Pharmacology. No word yet on successors for Richmond or Goyan, or for Gerald L. Klerman, who, prior to the election, said he would leave in December from the post of Administrator of the Alcohol, Drug Abuse and Mental Health Administration.

At the White House Science Office, the week after Inauguration Day found many old hands still on the job, pending selection of a successor for presidential Science Adviser Frank Press. Associate Director Philip M. Smith was serving as top hand. The unavoidable impression was that the workload was far short of lethal. At this writing, it's widely thought the job will go to Simon Ramo, a founder of the TRW conglomerate and co-chairman of Reagan's Science and Technology Task Force. But there's nothing officially announced yet, and as recently as last week, Reagan's personnel aides were still asking around about names on a short list of possibilities for the job. Not on that list, it should be noted, was William A. Nierenberg, the California oceanographer who, after Election Day, was widely reported to be in the lead for the job. Apart from his eagerness for it, SGR is advised, Nierenberg suffers from a lack of industrial research experience, an item that the economy-boosting Reagan Administration quite reasonably deems important for the presidential science adviser.

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